

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A laser device, comprising a laser beam emitter having an optical resonator and an optical fiber for guiding a laser beam from said laser emitter,, wherein said optical resonator has a resonator and a reflection mirror, wherein numerical apertures NA_i , NA_e and NA_f have a relation of: $NA_i < NA_e < NA_f$, where the numerical aperture of the laser beam entering said optical fiber is NA_i , the numerical aperture of the laser beam emitted from said optical fiber is NA_e , the numerical aperture of said optical fiber is NA_f , and at least one of a length of said resonator or a curvature of said reflection mirror is determined so as to satisfy the condition that a parameter M^2 of beam quality of a projected laser beam is within a range of $8 \leq M^2 \leq 22$, where $M^2 = \pi W \cdot \theta / \lambda$ (W is a beam waist of a laser beam; θ is a spreading angle; and λ is a wavelength of the laser beam).

2. (Currently amended) ~~An ophthalmological surgical system, comprising a~~ A laser device according to claim 1, further

comprising a slit lamp optical system, wherein the laser beam from said optical fiber enters a pupil of an eye via said slit lamp optical system, wherein the numerical apertures N_{Am} and N_{Amax} have a relation of: $N_{Am} \leq N_{Amax} \leq N_{Af}$, where the numerical aperture of the pupil is N_{Am} and the maximum numerical aperture of the laser beam is N_{Amax} , and ~~wherein said laser device emits a laser beam in such manner that~~ a parameter M^2 of beam quality is within a range of $8 \leq M^2 \leq 22$.

3. (Currently amended) A laser device according to claim 1, wherein the laser beam emitted from said laser beam emitter is propagated in ~~an~~ said optical fiber, wherein a core diameter of said optical fiber is ~~from 50 μm to 75 μm~~ , and the numerical aperture ~~N_{Af}~~ N_{Ae} of the laser beam emitted from said optical fiber is in a range of $0.06 \leq N_{Ae} \leq N_{Af}$ ~~$0.10 \sim 0.12$~~ .

4. (Currently amended) A laser device according to claim 1, wherein the laser beam emitted from said laser beam emitter is propagated in ~~an~~ said optical fiber, wherein a core diameter of said optical fiber is 75 μm , and the ~~exit~~ numerical aperture N_{Ae} of the laser beam emitted from said optical fiber is in the range of $0.06 \leq N_{Ae} \leq 0.1$.